

The influent flow to a 2.2 MGD facility is 1.4 MGD with an influent TSS concentration of 176 mg/L with a MLSS concentration of 1,325 mg/L. What is the sludge age of this facility in days?

Lbs MLSS in aeration basin = Flow MGD X 8.34 X concentration mg/L MLSS

Lbs TSS in influent = Flow MGD X 8.34 X TSS concentration mg/L

$2.2 \text{ MGD} \times 8.34 \times 1,325 \text{ mg/L} = 24,311.10 \text{ lbs MLSS in aeration basin}$

$1.4 \text{ MGD} \times 8.34 \times 176 \text{ mg/L} = 2,054.98 \text{ lbs influent TSS}$

**Sludge age 11.83 = days**

The influent flow to a 278,000 GPD facility is .099 MGD with an influent TSS concentration of 155 mg/L with a MLSS concentration of 1,022 mg/L. What is the sludge age of this facility in days?

Lbs MLSS in aeration basin = Flow MGD X 8.34 X concentration mg/L MLSS

Lbs TSS in influent = Flow MGD X 8.34 X TSS concentration mg/L

$.278 \text{ MGD} \times 8.34 \times 1,022 \text{ mg/L} = 2,369.53 \text{ lbs MLSS in aeration basin}$

$.099 \text{ MGD} \times 8.34 \times 155 \text{ mg/L} = 128.00 \text{ lbs influent TSS}$

**Sludge age 18.51 = days**